

FIG. 1

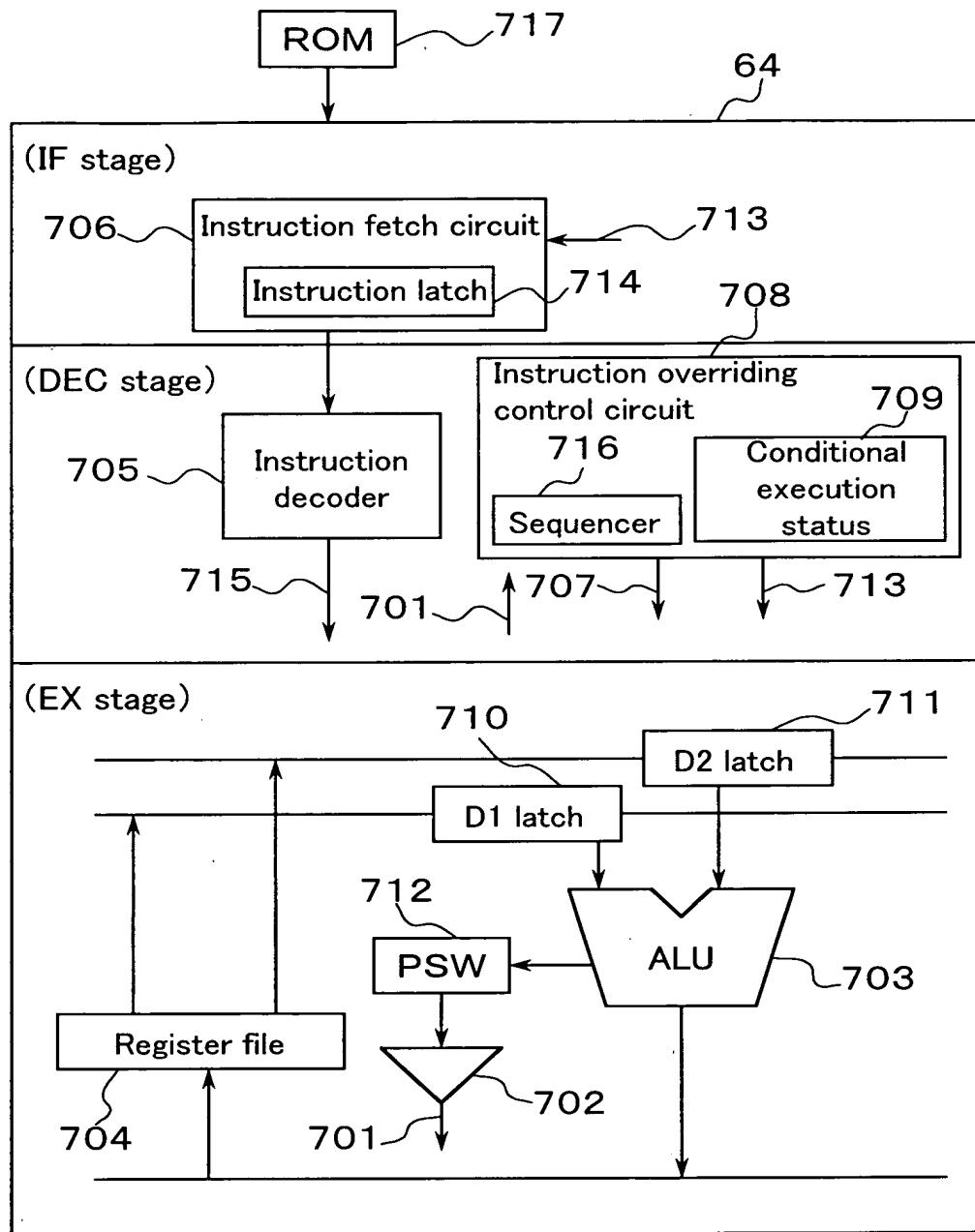


FIG. 2

Conditional execution status	x'00	x'01	x'10	x'11
Exclusive condition				
1	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"	Instruction overriding signal "0"
0	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"

FIG. 3A

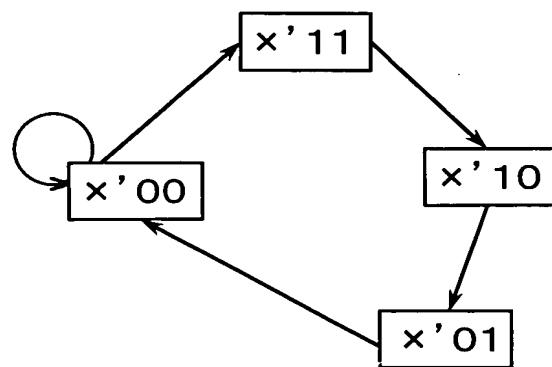


FIG. 3B

FIGURE 4 "FIGURE 4"

Inventor: Kazushi KURATA
Docket No.: 10873.753US01
Title: DATA PROCESSING DEVICE AND PROGRAM CONVERSION DEVICE
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Phone No.: 612.571.5237
Sheet 4 of 33

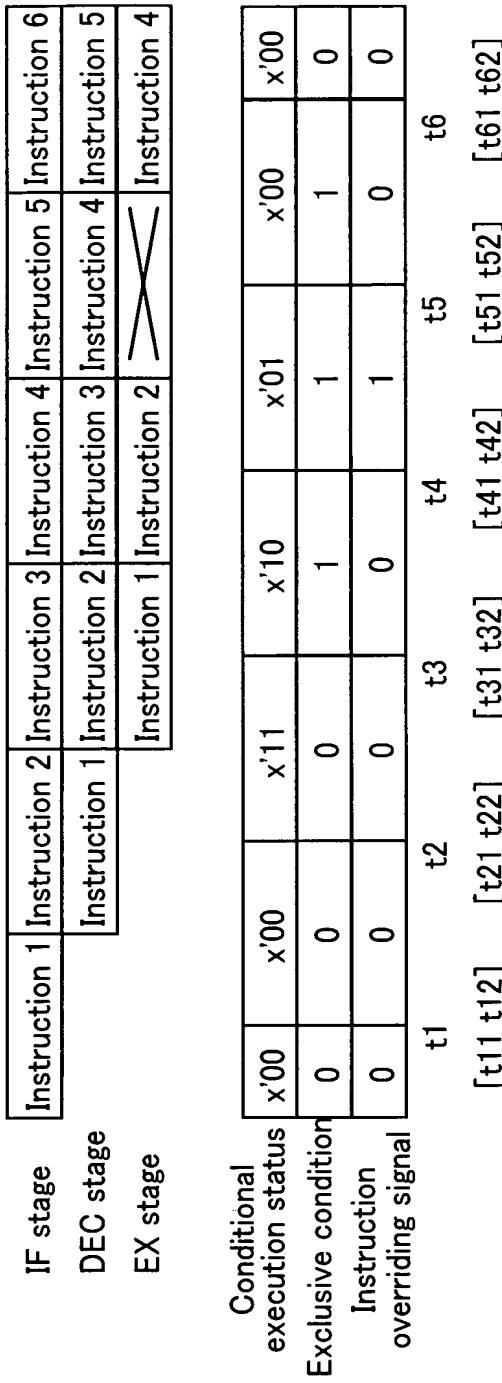


FIG. 4

First line	SUBIFEZF R0,R1
Second line	MOV R2,R4
Third line	MOV R3,R4
Fourth line	ADD R5,R6
Fifth line	NOP
Sixth line	NOP

FIG. 5

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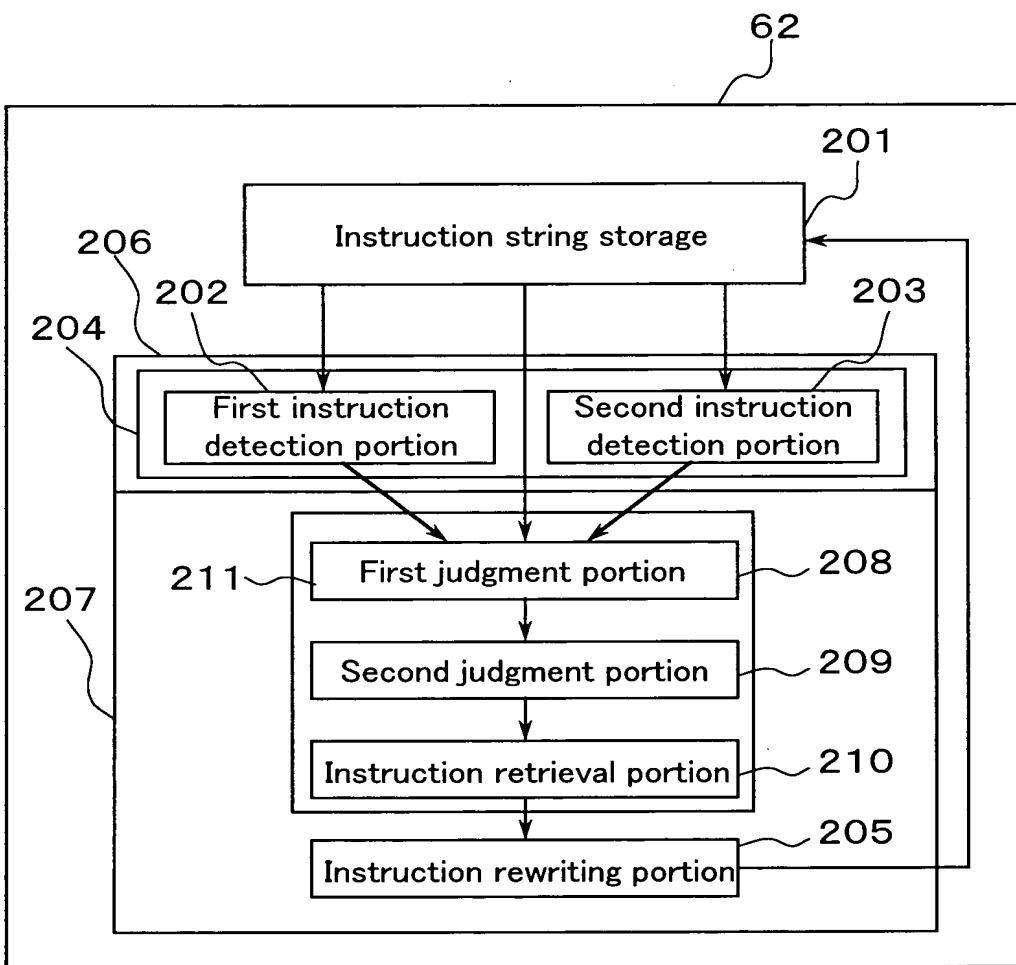


FIG. 6

First line	ADD R5,R1
Second line	SUB R0,R1
Third line	MOVIFZF R2,R4
Fourth line	MOVIFNZF R3,R4
Fifth line	ADD R4,R5
Sixth line	MOV R5,R7
Seventh line	MOVIFZF x'0001,R6
Eighth line	MOV R6,R0

FIG. 7

First line	ADD R5,R1
Second line	SUBIFEZF R0,R1
Third line	MOV R2,R4
Fourth line	MOV R3,R4
Fifth line	ADD R4,R5
Sixth line	MOV R5,R7
Seventh line	MOVIFZF x'0001,R6
Eighth line	MOV R6,R0

FIG. 8

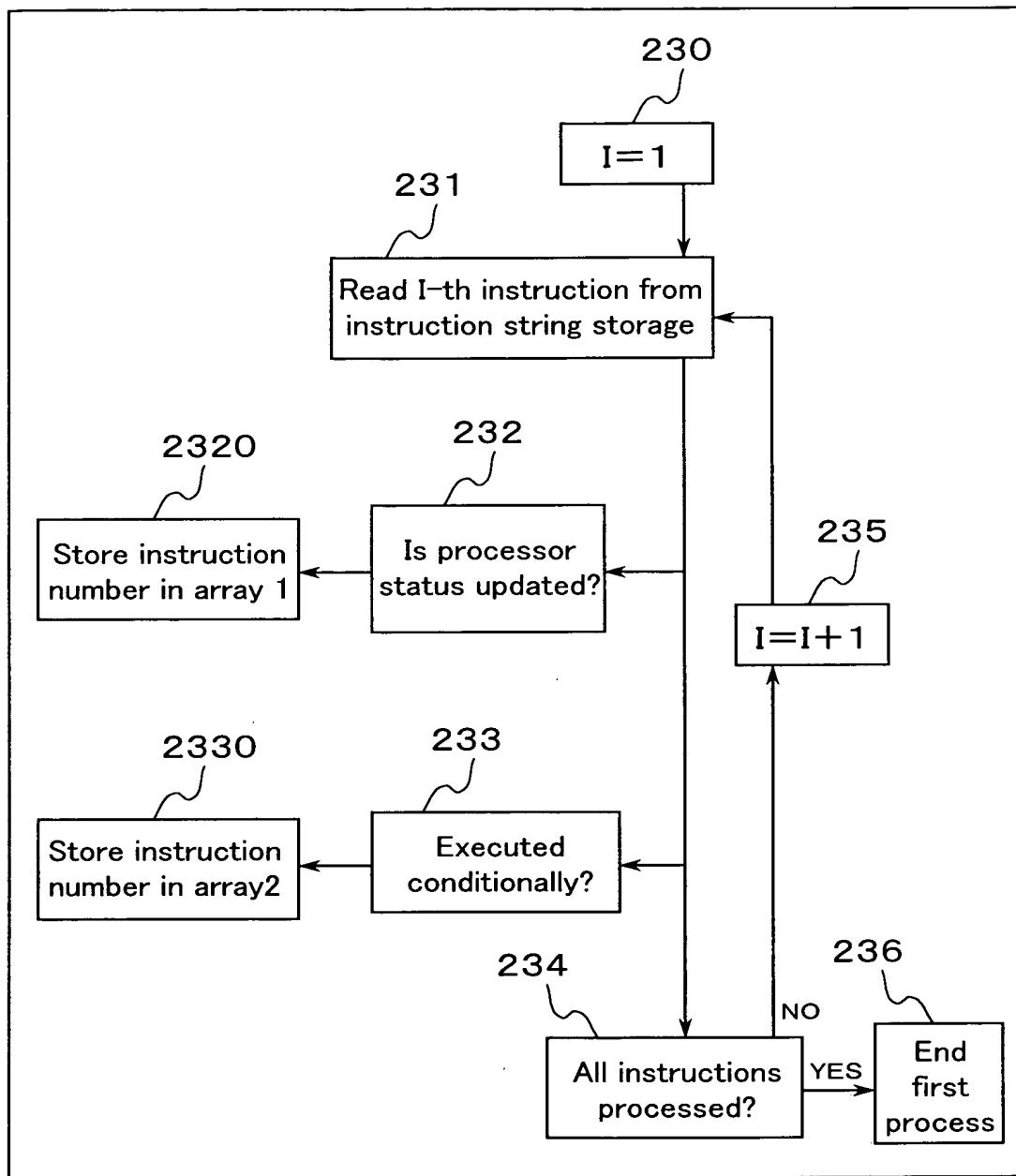


FIG. 9

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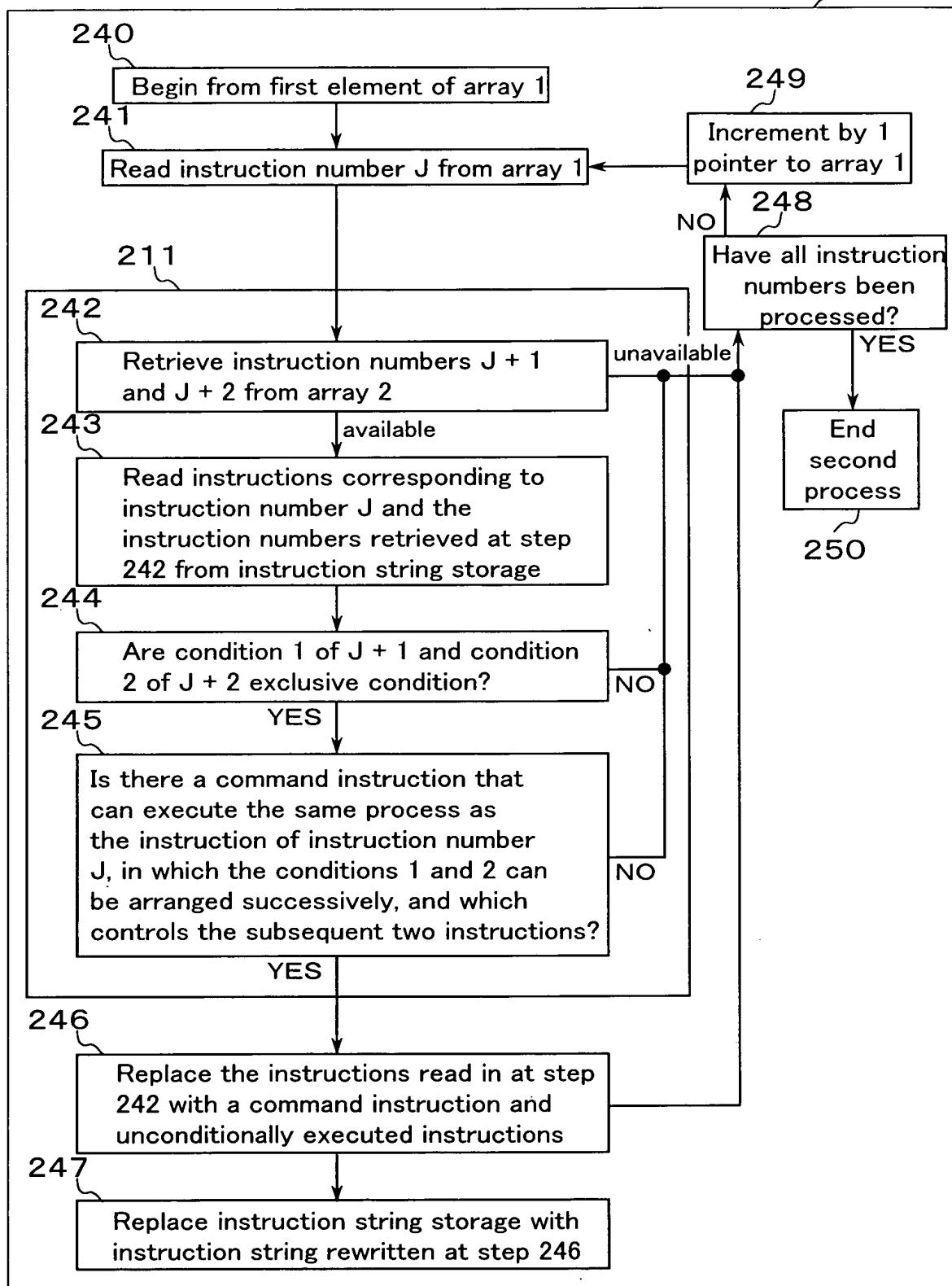


FIG. 10

Conditional execution status	x'000	x'010 or x'001	x'100 or x'011	x'101
Exclusive condition				
1	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"	Instruction overriding signal "0"
0	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"

FIG. 11A

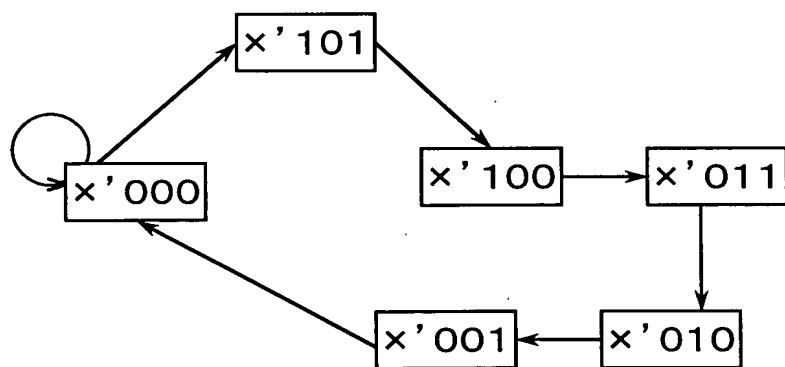


FIG. 11B

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First line	SUBIFEXZF R0,R1
Second line	MOV R2,R6
Third line	MOV R3,R7
Fourth line	MOV R4,R6
Fifth line	MOV R5,R7
Sixth line	MOV x'0001,R6
Seventh line	ADD R0,R6
Eighth line	NOP

FIG. 12

10 9 2 9 0 " 5 0 2 1 6 2 6 0

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 Sheet 12 of 33

	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6	Instruction 7	Instruction 8
IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6	Instruction 7	Instruction 8
DEC stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6	Instruction 7	Instruction 8
EX stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6	Instruction 7	Instruction 8

Conditional execution status	x'000	x'000	x'101	x'100	x'011	x'010	x'001	x'000	x'000
Exclusive condition	0	0	0	1	1	1	1	1	1
Instruction overriding signal	0	0	0	0	0	1	1	0	0
	t1	t2	t3	t4	t5	t6	t7	t8	
	[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]	[t61 t62]	[t71 t72]	[t81 t82]	

FIG. 13

First line	SUB R0,R1
Second line	MOVIFZF R2,R6
Third line	MOVIFZF R3,R7
Fourth line	MOVIFNZF R4,R6
Fifth line	MOVIFNZF R5,R7
Sixth line	MOV x'0001,R6
Seventh line	ADD R0,R6
Eighth line	NOP

FIG. 14

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First line	SUB R0,R1
Second line	MOVIFZF R2,R6
Third line	MOVIFNZF R4,R6
Fourth line	MOVIFNZF R5,R7
Fifth line	MOVIFZF R3,R7
Sixth line	MOV x'0001,R6
Seventh line	ADD R0,R6
Eighth line	NOP

FIG. 15

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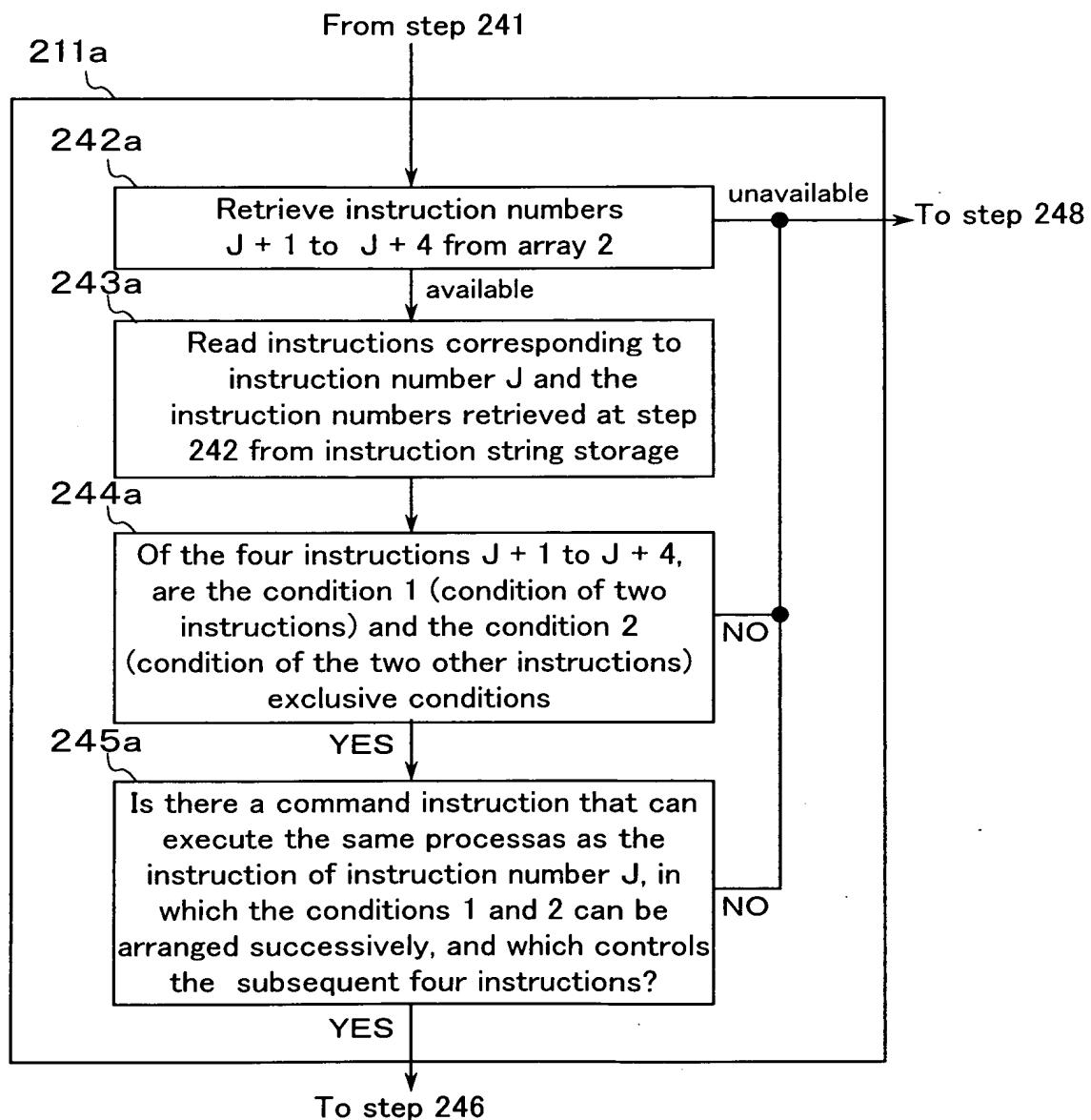


FIG. 16

Conditional execution status Exclusive condition	x' 00	x' 01	x' 10
1	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"
0	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "0"

FIG. 17A

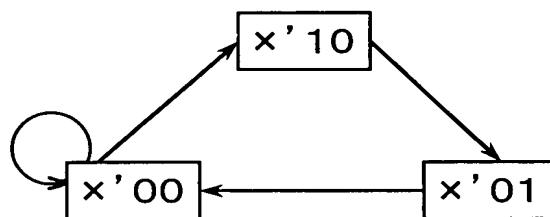


FIG. 17B

First line	SUBIFXZF R0,R1
Second line	MOV R2,R3
Third line	ADD R3,R6
Fourth line	MOV R4,R7

FIG. 18

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10 0 2 9 0 " 5 0 2 1 6 8 6 0

	IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5
DEC stage		Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5
EX stage		Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5
Conditional execution status	x'00	x'00	x'10	x'01	x'00	x'00
Exclusive condition	0	0	0	1	1	1
Instruction overriding signal	0	0	0	1	0	0
t1	t2	t3	t4	t5		
[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]		

FIG. 19

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Phone No.: 612.571.5237
Sheet 17 of 33

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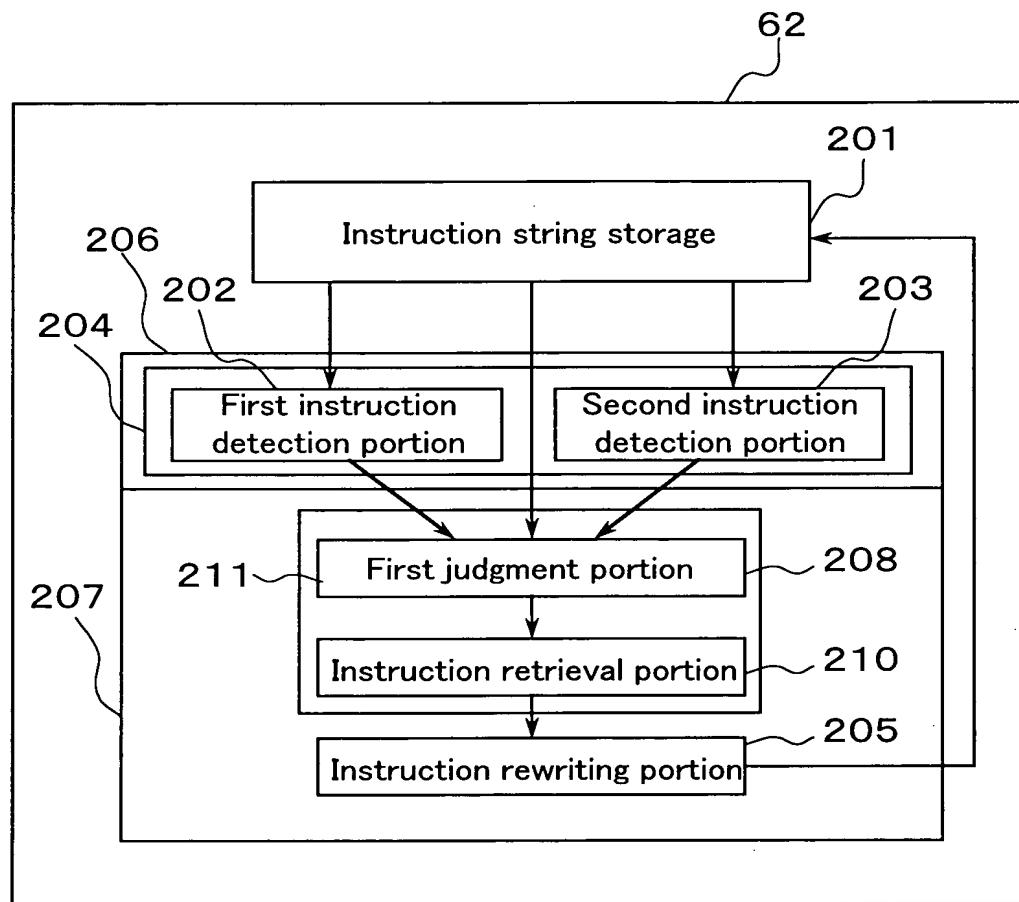


FIG. 20

First line	SUB R0,R1
Second line	MOVIFNZF R2,R3
Third line	ADD R3,R6
Fourth line	MOV R4,R7

FIG. 21

□□□□□□□□□□□□□□□□□□□□

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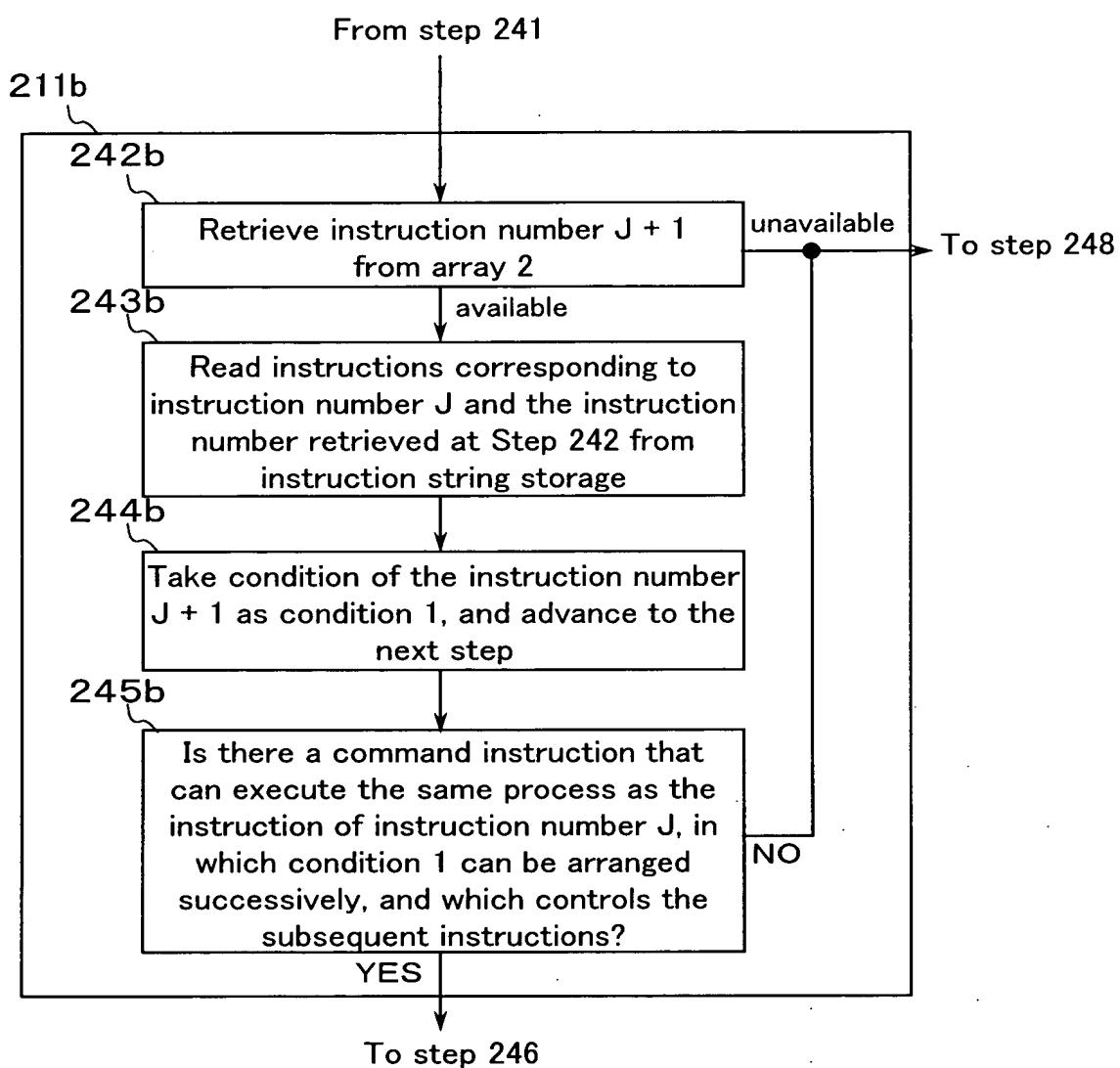


FIG. 22

Conditional execution status	x' 00	x' 01	x' 10	x' 11
Exclusive condition				
1	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "1"	Instruction overriding signal "0"
0	Instruction overriding signal "0"			

FIG. 23A

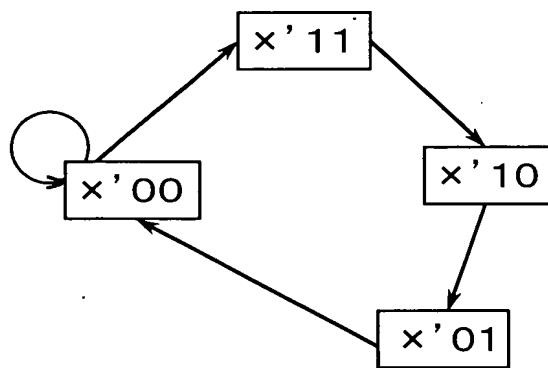


FIG. 23B

First line	SUBIFNXZF R0,R1
Second line	MOV R2,R3
Third line	MOV R5,R4
Fourth line	ADD R3,R6
Fifth LINE	MOV R4,R7

FIG. 24

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703290 50246860

	IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 5	Instruction 6
DEC stage		Instruction 1	Instruction 2	Instruction 3	Instruction 4	Instruction 4	Instruction 5
EX stage		Instruction 1	Instruction 1	Instruction 3	Instruction 4	Instruction 4	Instruction 4
Conditional execution status	x'00	x'00	x'11	x'10	x'01	x'00	x'00
Exclusive condition	0	0	0	1	1	1	1
Instruction overriding signal	0	0	0	1	1	0	0
	t1	t2	t3	t4	t5	t6	
[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]	[t61 t62]		

FIG. 25

First line	SUB R0,R1
Second line	MOVIFNZF R2,R3
Third line	MOVIFNZF R5,R4
Fourth line	ADD R3,R6
Fifth line	MOV R4,R7

FIG. 26

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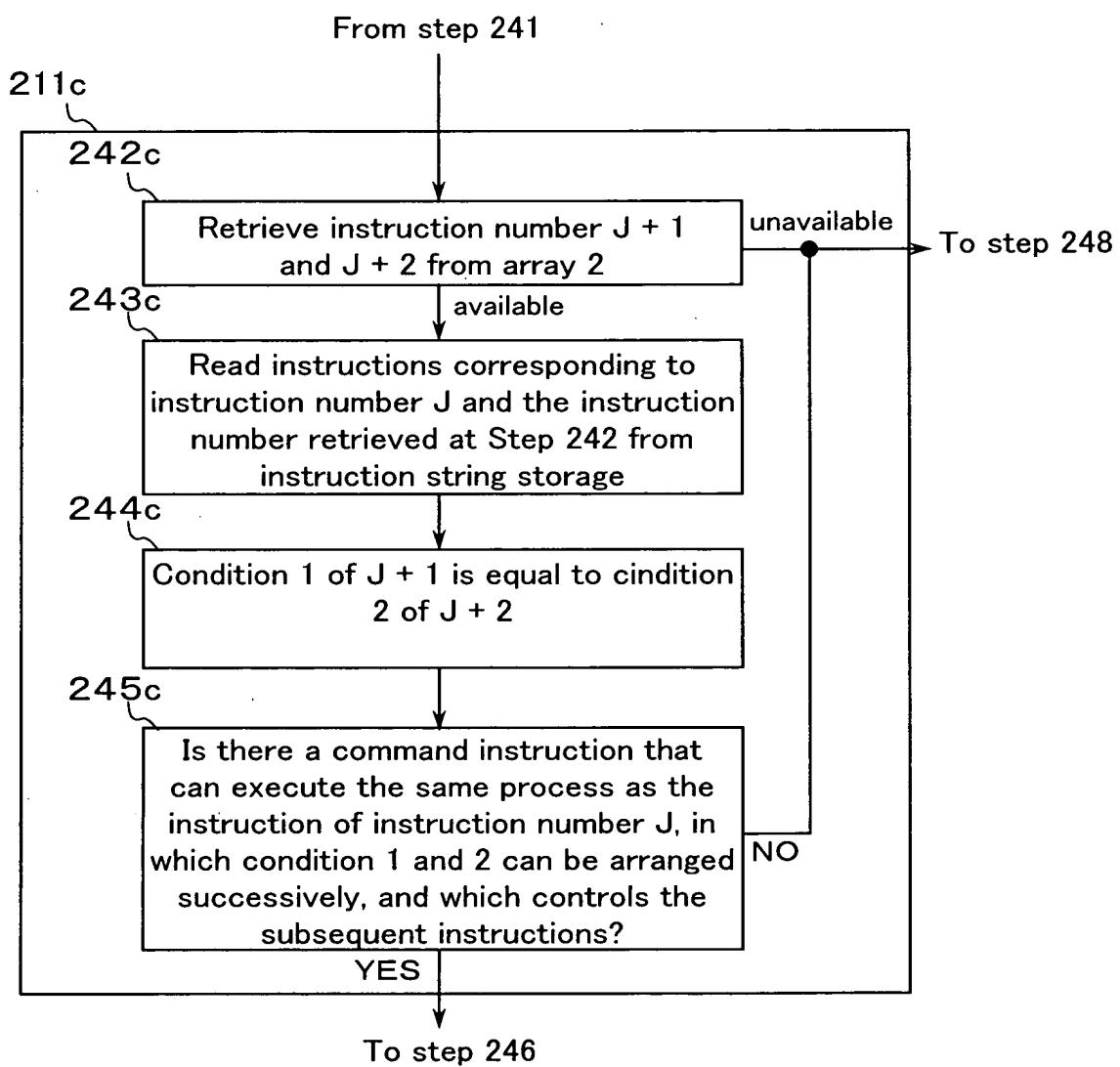


FIG. 27

00000000000000000000000000000000

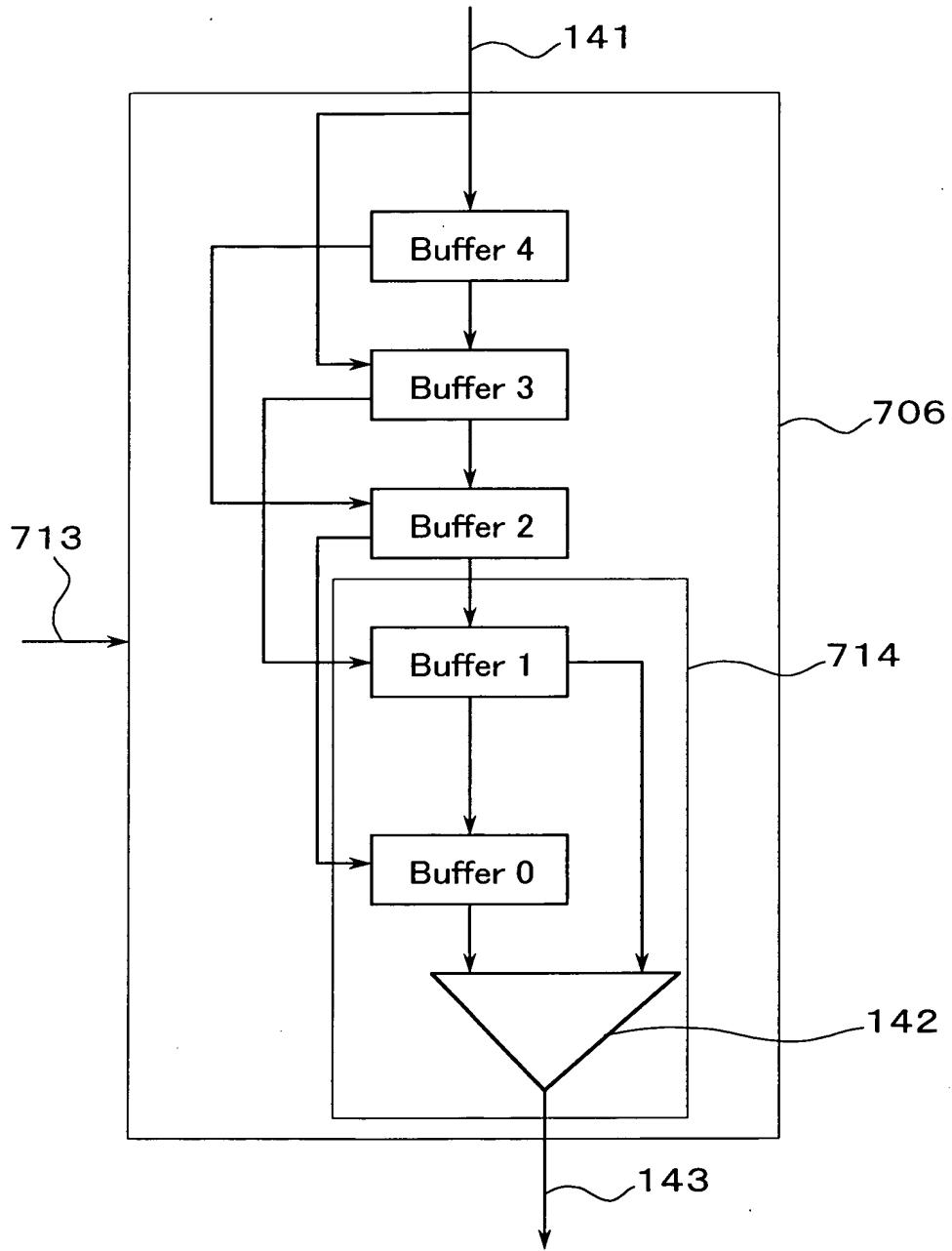


FIG. 28

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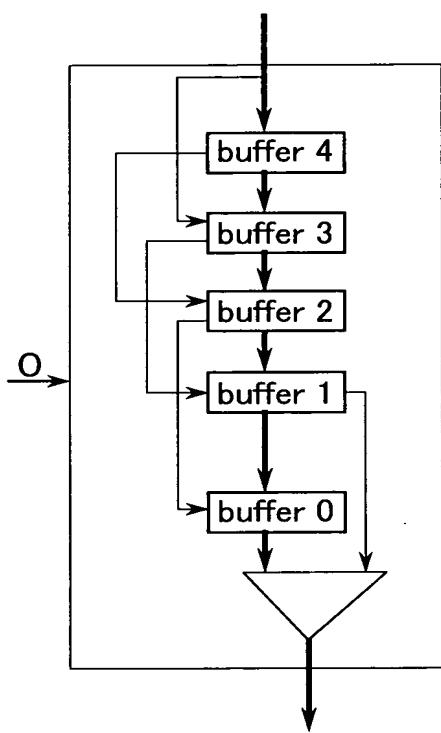


FIG. 29A

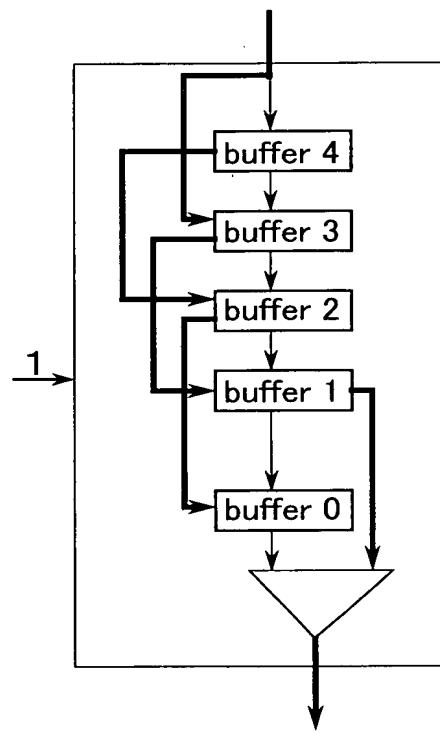


FIG. 29B

Conditional execution status	x'00	x'01	x'10	x'11
Exclusive condition				
1	Instruction overriding signal "0"	X	Instruction overriding signal "0"	Instruction overriding signal "0"
0	Instruction overriding signal "0"	Instruction overriding signal "0"	Instruction overriding signal "1"	Instruction overriding signal "0"

FIG. 30A

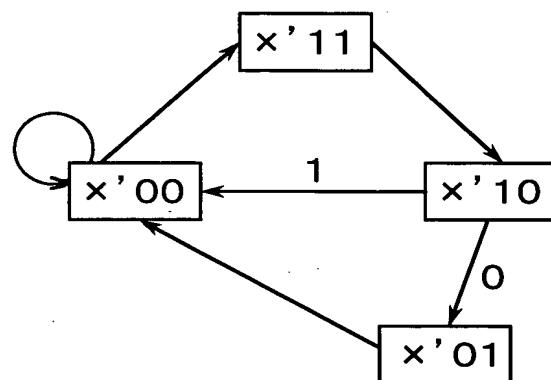


FIG. 30B

Conditional execution status	x'00	x'01	x'10	x'11
Exclusive condition				
1	0	0	1	0
0	0	0	0	0

FIG. 30C

10 0 0 0 0 0 0 0 0 0 0 0

Buffer 4	Instruction 5	Instruction 6	Instruction 7	—	—
Buffer 3	Instruction 4	Instruction 5	Instruction 6	Instruction 8	Instruction 9
Buffer 2	Instruction 3	Instruction 4	Instruction 5	Instruction 7	Instruction 8
Buffer 1	Instruction 2	Instruction 3	Instruction 4	Instruction 6	Instruction 7
Buffer 0	Instruction 1	Instruction 2	Instruction 3	Instruction 5	Instruction 6
IF stage	Instruction 1	Instruction 2	Instruction 3	Instruction 5	Instruction 6
DEC stage	Instruction 1	Instruction 2	Instruction 4	Instruction 5	Instruction 5
EX stage	Instruction 1	Instruction 2	Instruction 4	Instruction 4	Instruction 4
Conditional execution status	x'00	x'00	x'11	x'10	x'00
Instruction prefetch control signal	0	0	0	1	0
Exclusive condition	0	0	0	1	1
Instruction overriding signal	0	0	0	0	0
	t1	t2	t3	t4	t5
	[t11 t12]	[t21 t22]	[t31 t32]	[t41 t42]	[t51 t52]

FIG. 31

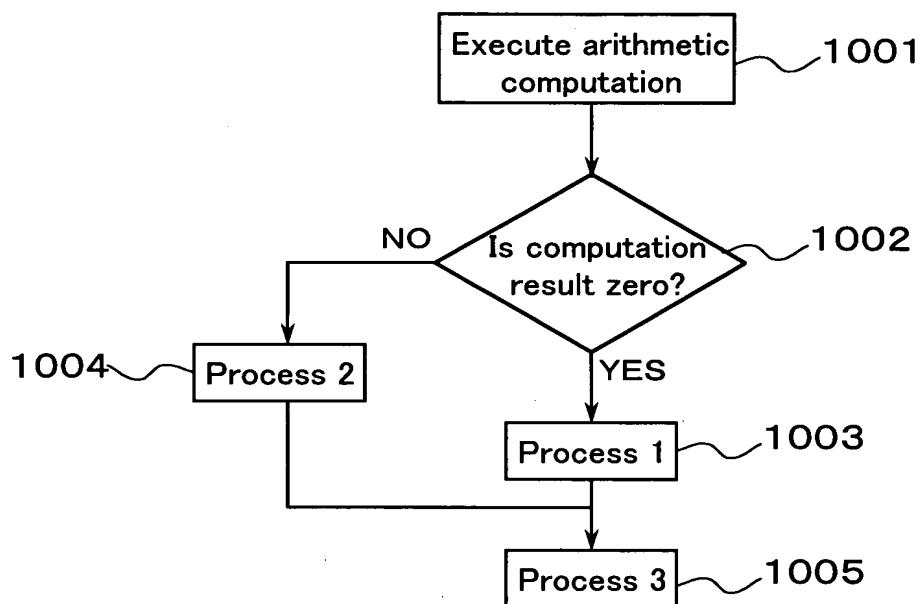


FIG. 32
(PRIOR ART)

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First line	SUB R0,R1
Second line	BNE label 1
Third line	Instruction 1
Fourth line	JMP label 2
Fifth line	label 1: Instruction 2
Sixth line	label 2: Instruction 3

FIG. 33
(PRIOR ART)

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First line	SUB R0,R1
Second line	MOVIFZF R2,R4
Third line	MOVIFNZF R3,R4
Fourth line	ADD R5,R6

FIG. 34
(PRIOR ART)

09291205 - DE2003

00000000-00000000-00000000-00000000

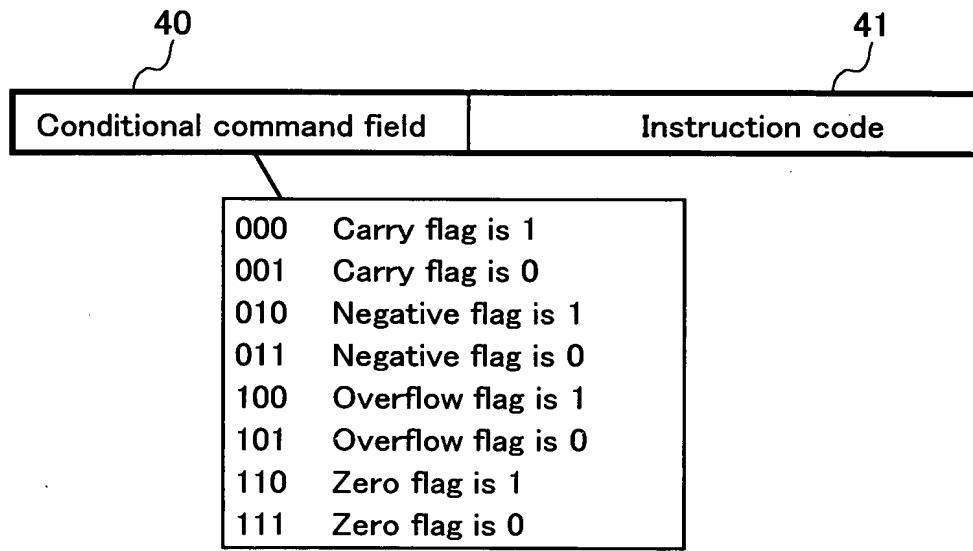


FIG. 35
(PRIOR ART)